



Owner's Guide

Installation & Operation

Char Broiler
HCH Series



Hestan Commercial Corporation

3375 E. La Palma Ave
Anaheim, CA 92806
(888) 905-7463

RETAIN THIS MANUAL FOR FUTURE REFERENCE



IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

CALIFORNIA PROPOSITION 65 - WARNING



WARNING This product can expose you to chemicals including carbon monoxide, which is known to the State of California to cause cancer.

For more information, go to www.P65Warnings.ca.gov.

Table of Contents

Section 1:	Installation	4
	Installation Procedure.....	4
	Uncrating.....	4
	Location	4
	Clearances	4
	Placing Appliance	4
	Leveling.....	4
	Riser Installation.....	5
	Statutory Regulations	5
	United States of America	5
	Canada	5
	Gas Supply.....	6
	Gas Pressure Regulator	7
	Ventilation Air / Flue Connections.....	7
	Electrical Supply	8
	Model / Serial / Rating Plate Location	8
Section 2:	Operating Instructions.....	9
	Lighting and Shutdown Instructions.....	9
Section 3:	Cleaning and Maintenance.....	10-11
	Gas-Fired Appliances	10-11
	Service	12
	Troubleshooting Guide.....	12

Installation

Installation Procedure

Uncrating

Check the crate for any possible damage sustained during transit. Carefully remove the appliance, removing all packing material, again check for damage. Any damage to the appliance must be reported to the carrier immediately.

Location

Proper placement of the appliance will ensure operator convenience and satisfactory performance. Adequate clearance must be maintained so that the combustion and ventilation air is not obstructed for proper operation. A minimum front clearance of 36 inches (914 mm) must be provided for servicing. The appliance must be kept free and clear of combustible materials.

Clearances

The following minimum clearances must be followed:

Model	COMBUSTIBLE		NON-COMBUSTIBLE	
	BACK	SIDE	BACK	SIDE
Char Broiler	See Note Below	See Note Below	0"	0"

NOTE: For use in non-combustible locations only.

Placing Appliance

Place the appliance in the required position and level by means of the adjustable legs. The surface on which the appliance is to be installed must be capable of adequately supporting the weight of the appliance.

Leveling

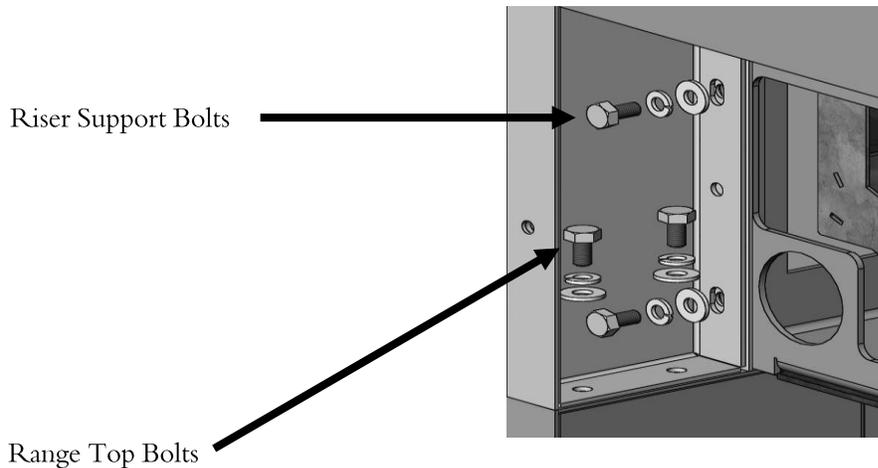
For proper and safe operation, each appliance must be level. Counter units must be installed on a non-combustible surface only.

4" legs are mounted using four hex-head bolts per leg and each leg is adjustable simply by turning the inner cylinder leg, clockwise to lower and counter-clockwise to elevate.

NOTE: A carpenter's level can be used on the plate shelf for left to right leveling.

Riser Installation

- 1) Remove back panel from riser assembly by removing mounting screws
- 2) Remove the four bolts at the rear of the appliance holding on the side panels (two on each side, see diagram below)
- 3) Place riser on support brackets on back of the appliance.
- 4) Re-install the four bolts into the back of the appliance through the riser channels, do not tighten
- 5) Attach the bottom supports with supplied bolts, two on each side
- 6) Tighten the four bolts that attach riser to appliance.
- 7) Tighten the four bolts that attach riser to bottom supports
- 8) Re-install back cover



NOTE: Failure to re-install back cover could cause improper venting of exhaust gases/heat from the appliance, creating soot that clogs the burner(s) and flue and/or creates a temperature risk to cabinet and components.

Statutory Regulations (Install Codes)

The installation of this appliance must be carried out by a properly trained and qualified installer and in accordance with the relevant regulations, codes of practice and the related publications of the Country, State, County and City of destination.

United States of America

- 1) Local Codes
- 2) In the absence of local codes, installation must conform to the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1, as applicable. Copies may be obtained from the American Gas Association, Inc., on their web site: <http://www.aga.org/>
- 3) National Electrical Code, ANSI/NFPA-70, or latest edition. Copies may be obtained from the National Fire Protection Association, on their web site: <http://www.nfpa.org/>
- 4) Vapor Removal From Cooking Equipment, NFPA-96, or latest edition. Copies may be obtained from the National Fire Protection Association, on their web site: <http://www.nfpa.org/>

Canada

- 1) Local Codes
- 2) CSA B149.1 Natural Gas and Propane Installation Code.
- 3) CSA C22.1 Canadian Electrical Code
- 4) CSA C22.2 Canadian Electrical Code

Canadian codes can be found on the CSA website: <http://www.csa.ca>

Gas Supply

The local gas authority should be consulted at the installation planning stage in order to establish the availability of an adequate supply of gas and to ensure that the meter is adequate for the required flow rate. The pipe work from the meter to the appliance must be an appropriate size.

All fixed (non-mobile) appliances must be fitted with an accessible upstream gas shutoff valve as a means of isolating the appliance for emergency shut off and for servicing. A union or similar means of disconnection must be provided between the gas-cock and the appliance.

A manually operable valve must be fitted to the gas supply to the kitchen to enable it to be isolated in an emergency. Wherever practical, this shall be located either outside the kitchen or near an exit in a readily accessible position.

Where it is not practical to do this, an automatic isolation valve system should be fitted which can be operated from a readily accessible position near the exit.

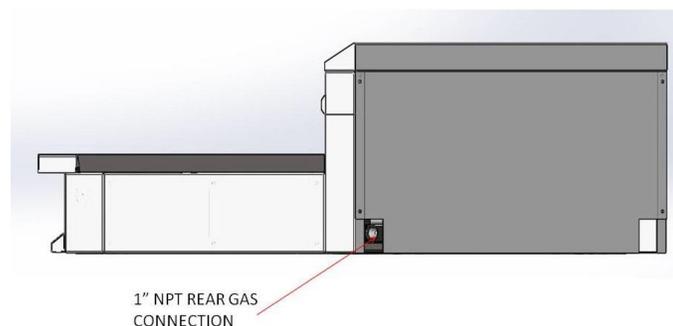
In locations where the manual isolation valve is fitted or the automatic system can be reset this notice must be posted:

“ALL DOWNSTREAM BURNER AND PILOT VALVES MUST BE TURNED OFF PRIOR TO ATTEMPTING TO RESTORE THE SUPPLY. AFTER EXTENDED SHUT OFF, PURGE BEFORE RESTORING GAS”

NOTE: Before assembly and connection, check gas supply.

Gas Supply Notes

- 1) The type of gas for which the unit is equipped is stamped on the rating plate, see locations on page 9. Connect a unit stamped “NAT” only to natural gas and stamped “LP” only to propane gas.
- 2) If it is a new installation, have the gas authorities check the meter size and piping to assure that the unit is supplied with the necessary amount of gas supply and pressure to operate the unit(s).
- 3) Make certain new piping and connections have been made in a clean manner and have been purged so that piping compound, chips, etc. will not clog pilots, valves, gas regulator, or burners. Use pipe joint compound approved for natural and liquefied petroleum gases.
- 4) The natural gas pressure coming into the regulator should be 7” WC or .25 psig (1.75kpa) and 5” WC .18 psig (1.25kpa) coming out of the regulator. For liquid propane gas pressure coming into the regulator should be 11” WC or .4 psig (2.75kpa) and 10” WC .36 psig (2.5kpa) coming out of the regulator.



Gas Pressure Regulator

A gas pressure regulator must be installed to regulate the proper flow of gas to the appliance. The regulator must be installed between the main gas supply line to the unit shut off valve and the appliance and must be accessible for servicing. Proper sizing of the regulator is extremely important, check the BTU rating of the appliance or appliances being regulated by the regulator.

NOTE: Contact the factory for regulator sizing when multiple appliances are being installed in a line up or island suite configuration and are interconnected using the front manifold connections.

NOTE: Gas pressure should be checked when the unit is installed and all other equipment on the same line is on. The operating gas pressure must be the same as that specified on the rating plate. If necessary, pressure adjustment may be made at the pressure regulator.

The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system where pressures are in excess of .5 psig (3.45kpa).

When test pressures are .5 psig (3.45kpa) or less, the appliance must be isolated from the gas supply system by closing its individual manual shutoff valve.



Prior to lighting, check all joints in the gas supply line for leaks. Use soap and water solution. Do not use an open flame. After piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

Ventilation Air / Flue Connections

The following notes are intended to give general guidance. For detailed recommendations, refer to the applicable codes in the Country, State, County and City of installation.



Do not obstruct the flow of combustion and ventilation air.

Proper ventilation is critical for optimum performance. The ideal method of ventilating gas fired equipment is the use of properly designed canopy that should extend six inches (152mm) beyond all sides of the appliance (s) and six feet six inches (1981mm) above the floor. Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment," NFPA No. 96 (latest edition), available from the National Fire Protection Association, on their web site: <http://www.nfpa.org/>.

A strong exhaust will create a vacuum in the room. For an exhaust vent to work properly, replacement air must be equal to the amount of air exhausted. An imbalance between exhaust and replacement air can cause degradation in the appliance's performance.

All gas burners and pilots need sufficient air to operate. Large objects should not be placed in front of the appliance(s) that would obstruct the flow of air into the front.

NOTICE: In the Commonwealth of Massachusetts all gas appliances vented by either mechanical systems or ventilation hoods shall comply with 248 CMR interlocking requirements.

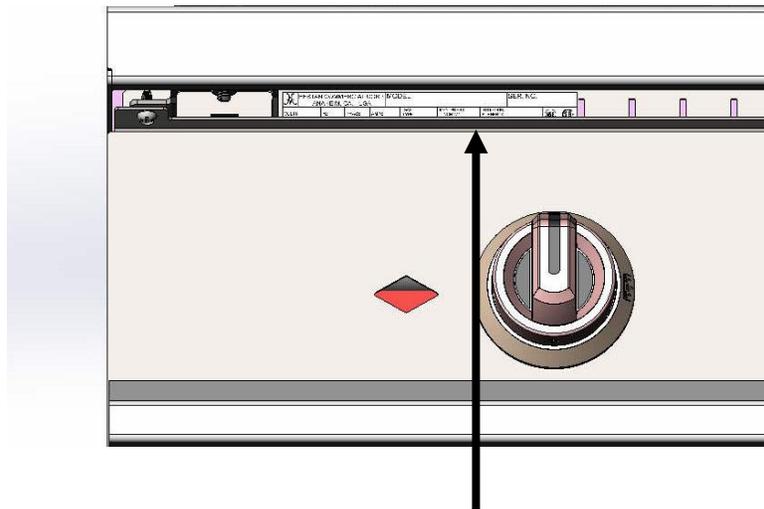
Electrical Supply (Where Applicable)

Important: This appliance must be electrically grounded in accordance with local codes, or in the absence of local codes with the National Electrical Code.



Appliances equipped with a flexible electrical supply cord are provided with a three-prong grounding plug. It is imperative that this plug be connected into a properly grounded three-prong receptacle. If the receptacle is not the proper grounding type, contact an electrician. Do not remove the grounding prong from this plug.

Model / Serial / Rating Plate Locations



Range tops

Rating plate will be located above the front panel

Operating Instructions

Lighting Instructions

Char Broiler

Standard Gas Valves:

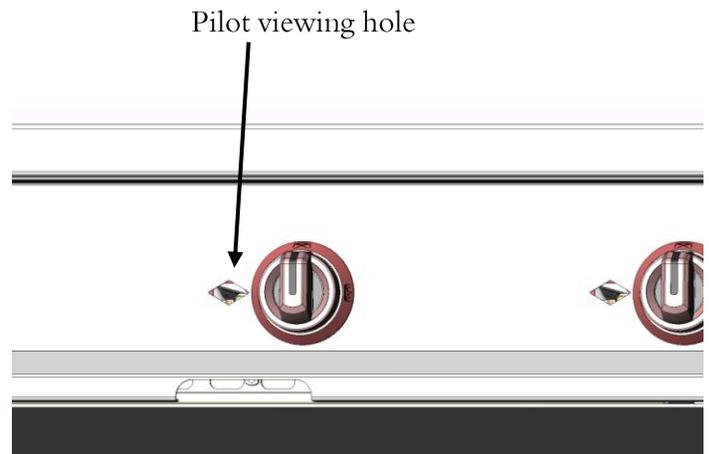
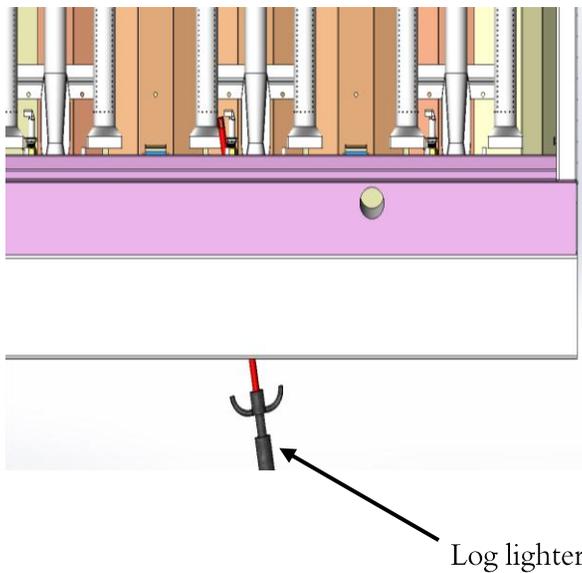
1. Turn main gas supply on. Turn knob(s) to the “ON” position for 5 seconds, purging the air in the gas lines. If there is no gas present, wait 5 minutes and repeat the operation.
2. When gas is present turn the knob(s) to the “OFF” position. Using a log lighter, light the pilot(s) through pilot viewing holes.
3. Wait 3 minutes, turn all of the burners “ON” and then “OFF”, one at a time, to make sure all of the lines have been purged of air.

For daily shutoff: Turn the knob(s) to the “OFF” position, the pilot(s) will remain on.



A 5 minute complete shutoff period is required before the appliance is re-lighted

Fig 1



Cleaning and Maintenance

Gas Fired Appliances

	CAUTION	TO AVOID RISK OF PERSONAL INJURY, BURNS OR DAMAGING UNIT Do not use spray bottle to apply cleaners, overspray could cause damage to equipment. Care should be taken around burner valves to prevent soap/degreaser from getting into valve body and mixing with valve grease.
	CAUTION	TO AVOID RISK OF PERSONAL INJURY OR BURNS Allow unit to cool prior to cleaning. If equipment has electrical power running to it disconnect power before cleaning or servicing.

 **WARNING** Never cover the entire cooking surface, by use of sheet pans or other devices, and never turn on the Char broiler to clean. This could cause permanent damage and warping of the unit and will void the warranty.

NOTE: Make sure the drip tray is placed properly in position.

1. Remove grates and supports from char broiler

- Scrape grates with a stiff bristle brush.
- Clean in sink with warm mild soap/degreaser water solution.
- Use stiff bristle brush to remove baked on particles from the grates.
- Thoroughly dry grates before reinstalling.

2. Remove radiants from char broiler

- Lift the radiants upward evenly; they rest easily on support pins welded to the Char broiler body.
- Clean in a sink with warm mild soap/degreaser water solution.
- A stiff bristle brush can be used to remove baked on particles from the radiants.
- Thoroughly dry radiants before reinstalling.

3. Remove Burner

- To remove the stainless steel burner, first shut off the gas supply and then remove the burners by pulling the burner up and push back away from the burner orifice towards the back of the burner box. Clean the burner in the sink with warm mild soap/degreaser water solution.
- A stiff bristle brush can be used to aid in cleaning.
- Thoroughly dry burner before reinstalling, be careful not to modify the air shutter setting.

4. Wipe out Char broiler cavity

- Wipe interior Char broiler cavity with a moist sponge and warm mild soap/degreaser water solution.
- A stiff bristle brush can be used to aid in cleaning.
- Thoroughly dry Char broiler before reassembly of unit.

5. Clean Pilot Hood (as needed, follow lighting instructions to relight the pilots after cleaning)

- Make sure gas supply is turned off.
- Clean with moist sponge and warm mild soap/degreaser water solution.
- A stiff bristle brush can be used to remove baked on food particles.
- Thoroughly dry pilot when done.

6. Clean front panel, plate shelf and burner knobs

- Remove knobs from unit (loosen set screws prior to removal); use a warm mild soap/degreaser water solution and a moist sponge to wipe off front panel. Make sure sponge is squeezed as dry as possible prior to use. Wipe surface clean with moist sponge and clean water, thoroughly dry surface when done. Knobs can be cleaned in sink with warm soapy water, do not use any solvents.
- Thoroughly dry front panel, plate shelf and burner knobs when done.

7. Clean Drip Tray

- This operation should be done last.
- Remove from unit and clean in a sink with warm mild soap/degreaser water solution. Smaller drip trays can be run through the dishwasher.
- Dry thoroughly when done prior to reinstalling in unit.

8. Inspect flue

- Check for grease and debris build up. A dirty or plugged flue could cause unit to not operate properly and allow build up of soot, creating an unsafe environment.
- Remove any debris from flue opening. Have a qualified technician and or cleaning service clean flue of any excess grease.

NOTE: Where necessary, use stainless steel, wood, plastic or rubber tools to scrape off heavy deposits of grease and oil from any stainless steel equipment. This will help avoid any steel particles from becoming embedded into the stainless steel surfaces. To maintain luster of stainless steel surfaces apply a thin coat of stainless steel cleaner and wipe with a clean cotton cloth. To avoid heat tint (slight oxidation which results in darkened areas in equipment stainless steel, never use more heat on any equipment than is absolutely necessary. Heat tint can be removed by scouring with stainless steel wool or scouring powder. Rub in the direction of the polished lines.

Service

All warranty and non-warranty repairs should be performed by qualified service personnel. To locate an authorized service agent in your area contact your dealer, local representative, or the manufacturer.

Hestan Commercial Products
(888) 905-7463

Troubleshooting guide

Symptom

Check

Burner will not light	Pilot not lit Burner ports are obstructed or dirty Burner is not secure to orifice Defective or clogged burner valve Incorrect orifice or clogged orifice
Pilot will not stay lit	Pilot orifice obstructed or dirty Vent plugged on regulator or regulator installed improperly Negative pressure or unbalanced ventilation in kitchen creating drafts Low gas pressure to unit If unit has flame safety, check thermocouple millivolt output, connection to gas valve, and pilot flame size
Slow to heat up/not recovering	Low gas pressure Burner ports are obstructed or dirty Defective or clogged burner valve Incorrect orifice or clogged orifice Unbalanced vent hood
Gas odor	Loose or broken gas line Ruptured pressure regulator Burner not installed properly Poor combustion, air fuel mixture not adjusted properly or obstructed/dirty burner ports Pilot not lit
Burner not working well/lazy or yellow flame	Gas pressure incorrect / incorrect regulator Orifice sized incorrectly Burner ports are obstructed or dirty Poor combustion, air fuel mixture not adjusted properly